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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/646,213	08/22/2003	Todor Sheljaskow	2003P09221US	9032
7590 11/07/2005				
Siemens Corporation Intellectual Property Department 170 Wood Avenue South Iselin, NJ 08830			EXAMINER BUDD, MARK OSBORNE	
			ART UNIT 2834	PAPER NUMBER

DATE MAILED: 11/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/646,213	Applicant(s) SHELJASKOW, TODOR	
	Examiner Mark Budd	Art Unit 2834	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 October 2005.
 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 6-8, 10 and 11 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) ☐ Claim(s) _____ is/are allowed.
 6) ☒ Claim(s) 6-8, 10 and 11 is/are rejected.
 7) ☐ Claim(s) _____ is/are objected to.
 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
 * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 2834

Claim 5 is rejected under 35 USC 102 as being anticipated by Smith for the specific reasons set forth in the previous office action (7-12-05).

Claims 6-8, 10 and 11 are rejected under 35 USC 103 as being on patentable over Fiebiger in view of Shirashi for the reasons noted in the previous office action (7-12-05).

Regarding the rejection of claim 5 applicant argues that grounding layer 70 cannot fairly be interpreted as a matching layer stating that the term "matching layer" is an art recognized term that connotes a relationship between thickness and acoustic velocity. If the claim used the term "impedance" matching layer applicant would perhaps have a valid point. However, the simple term matching layer is not the same as and impedance matching layer and has no special recognized limits in the art. Thus, Smith anticipates the current claim structure. It is only fair to point out that this time that if the claim were so limited to and impedance matching layer that as noted in the rejection of claims 6-8 it would have been obvious to one of ordinary skill in the art to provide multiple impedance matching layers in lieu of a single layer for the simple expedient of more efficient matching.

Applicant argues that claims 6-8 should not be rejected since Fiebiger does not show a two-dimensional array of piezoelectric elements. The examiner agrees that Fiebiger does not explicitly show such an array. However, col3 ln 22-32 describes the arrays as being suitable for use in the medical field and producing among other options rectangular tomographs. Note also figure 2 which shows the matching layer in a plan view as being more or less square. These would indicate a rectangular or square arrangement of equal size transducer elements #6 (a two-dimensional array). Please note that applicants admitted prior art indicates that both one and two dimensional piezoelectric element arrays are well known in the art. So whether or not fiber err explicitly teaches a two dimensional array such an array is certainly well-known to those of ordinary skill in the art. Applicant further argues that the combination of references must yield a multilayered device having to nonconductive matching layers. The examiner agrees that this can be one alternative, however, hey just as likely alternative is for both layers to be conductive-especially in view of the specific metallic constructions for the matching layer taught by Shirishi. The conductivity or lack thereof for the matching layer is only an issue of convenience (or inconvenience if considering short-circuiting possibilities) for making electrical connections to and from the piezoelectric elements. The materials for the matching layers are mainly selected based on their acoustic impedance values and not for their conductivity. The use of kerfing to avoid crosstalk between the piezoelectric elements is a known commodity to one of ordinary skill in the art. Providing the structure for its known purpose would have been obvious to one of ordinary skill in the art. Providing a further conductor to compensate for the low conductivity of the metallic matching layers would have been within the skill expected of the routineer.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark Budd whose telephone number is 571-272-2019. The examiner can normally be reached on Monday through Thursday from 6 a.m. to 4 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Darren Schuberg, can be reached on 571-272-2044. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR.

Art Unit: 2834

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Mark Budd Primary Examiner Art
Unit 2834